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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/725,258

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Yun Bok Lee

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1960

7590

09/23/2004

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EXAMINER

DUONG, THOI V

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 09/23/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/725,258

Applicant(s)

LEE ET AL.

Examiner

Thoi V Duong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11-29 ~~is/are~~ pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-29 ~~is/are~~ rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/497,507.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 1203.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Priority

1. This application appears to be a division of Application No. 09/497,507, filed February 4, 2000, now allowed. A later application for a distinct or independent invention, carved out of a pending application and disclosing and claiming only subject matter disclosed in an earlier or parent application is known as a divisional application or "division." The divisional application should set forth the portion of the earlier disclosure that is germane to the invention as claimed in the divisional application.

Accordingly, claims 9, 10 and 30-49 were cancelled. Claims 1, 2-8, and 11-29 are currently pending in this application.

Double Patenting

2. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

3. Claims 1, 13-15, 18 and 20-29 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1 and 4-17 of prior U.S. Patent No. 6,680,769 B1. This is a double patenting rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-8 and 11-29 are rejected under 35 U.S.C. 103(a) as being obvious over Kim et al. (USPN 6,583,836 B2) in view of Shimada et al. (USPN 6,603,524 B1).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned

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by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Re claims 1-3, as shown in Fig. 4A, Kim discloses a multi-domain liquid crystal display device comprising:

- first and second substrates 31, 33 facing each other;

- a gate bus line 1 as a conductive layer distorting electric field on said first substrate;

- a pixel electrode 13 on said conductive layer distorting electric field;

- a common-auxiliary electrode 15 on a same layer with the gate bus line 1 (col. 4, lines 34-39);

- a common electrode 17 on said second substrate;

- a liquid crystal layer between said first and second substrates; and

- an electrode 25 in an electric field inducing region that divides said liquid crystal layer into at least two domains (col. 6, lines 7-17),

- wherein, re claim 8, the electrode 25 is electrically connected to said common-auxiliary electrode 15 (col. 6, lines 11-18);

- wherein, re claim 11, as shown in Fig. 9B, said pixel electrode 13 overlaps said common-auxiliary electrode 15 (col. 5, lines 17-19);

- wherein, re claim 12, said pixel electrode 13 is not overlapping said common-auxiliary electrode 15 as shown in Fig. 7B (col. 5, lines 17-19);

- wherein, re claim 13, said electrode 25 is a light shielding layer;

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wherein, re claim 14, said electric field inducing region is an electric field inducing window in said common electrode as shown in Fig. 1;

wherein, re claim 15, said electric field inducing region is a dielectric frame 53 on said common electrode as shown in Fig. 4A;

wherein, re claim 16, said electric field inducing region is an electric field inducing window 51 in said pixel electrode;

wherein, re claim 17, said electric field inducing region is a dielectric frame 53 on said pixel electrode;

wherein, re claim 18, said common-auxiliary electrode includes a material selected from the group consisting of Al, Mo, Cr, Ta, Al alloy (col. 4, lines 23-30);

wherein, re claims 19 and 20, said pixel electrode and said common electrode include ITO (col. 5, lines 38-40);

wherein, re claims 25 and 26, said liquid crystal layer includes liquid crystal molecules having positive dielectric anisotropy or negative dielectric anisotropy (col. 5, lines 50-53); and

wherein, re claim 29, said liquid crystal layer includes chiral dopants (col. 5, line 53).

Re claims 27 and 28, the device further comprises a negative uniaxial film or a negative biaxial film 29 on said first and second substrates (col. 6, lines 22-35).

Re claim 21, the device further comprises an alignment layer formed on the second substrate (col. 5, lines 45-46).

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Re claim 22, said alignment layer is divided into at least two portions, liquid crystal molecules in said liquid crystal layer in each portion being aligned differently from each other (col. 7, line 66 through col. 8, line 3),

wherein, re claim 23, at least one portion of said alignment layer is alignment-treated (col. 8, lines 6-10); and

wherein, re claim 24, all portions of said alignment layer is non-alignment-treated (col. 8, lines 6-10).

Kim et al. discloses a multi-domain liquid crystal display device that is basically the same as that recited in claim 1 except that the electrode 15 is not a storage electrode.

As shown in Figs. 16A and 17, Shimada et al. discloses a liquid crystal device comprising a gate bus line 104 and a storage electrode 126,

wherein, re claim 4, said gate bus line 104 is formed on a same layer whereon said storage electrode 126 is formed (Fig. 17);

wherein, re claim 5, a supplementary storage electrode 132 is formed on said a storage electrode to form a storage capacitor (Fig. 17);

wherein, re claim 6, said supplementary storage electrode is source and drain electrodes (col. 18, lines 37-46); and

wherein, re claim 7, said supplementary storage electrode is formed on said gate bus line (Fig. 17).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the multi-domain liquid crystal display device of

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Kim et al. of with the teaching of Shimada et al. by forming a storage electrode to effectively prevent light leakage and maintain a high aperture ratio for the display (col. 18, lines 61-67).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thoi V. Duong whose telephone number is (571) 272-2292. The examiner can normally be reached on Monday-Friday from 8:30 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim, can be reached at (571) 272-2293.

Thoi Duong



09/16/2004



DUNG T. NGUYEN
PRIMARY EXAMINER